



International Journal of Humanities, Social Sciences and Literary Research

(An International Peer-Reviewed (Refereed) Journal)

Website: www.ijhslr.org/

E-mail: editorinchief@ijhslr.org

ISSN (Online): 3139-3225



Colonial Boundary-Making and Transboundary Water Governance in the Kumaun-Nepal Himalaya: A Historical Study of the Mahakali, Kosi, and Gandak Agreements, 1816-1996

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Received: 15 April 2026, Revised: 14 May 2026, Accepted: 15 June 2026, Available Online: 30 June 2026

<https://doi.org/10.5281/zenodo.21203504>

Abstract

Objective: This paper examines how colonial boundary-making and hydraulic interventions transformed shared river systems of the Kumaun-Nepal Himalaya into politically regulated transboundary resources. It focuses on the Mahakali, Kosi, and Gandak rivers to analyse how the Treaty of Sugauli (1816) and subsequent colonial irrigation policies shaped postcolonial water agreements and redefined rivers as instruments of territorial sovereignty, state development, and diplomatic negotiation.

Methodology/Approach: Using a historical research design, the study analyses treaty texts, colonial administrative reports, irrigation records, maps, and archival correspondence related to the Sugauli Treaty (1816), Kosi Agreement (1954), Gandak Agreement (1959), and Mahakali

Treaty (1996). These sources are examined alongside regional historical literature on the Kumaun frontier and Himalayan environmental history to trace continuities between colonial hydraulic governance and postcolonial transboundary water diplomacy.

Key findings/arguments: First, the designation of the Mahakali River as a political boundary following the Treaty of Sugauli reconfigured the Kumaun-Nepal Himalayan landscape by transforming customary shared water systems into territorial frontiers. Second, colonial irrigation initiatives established infrastructural and institutional patterns that shaped the negotiation and structure of postcolonial agreements on the Kosi and Gandak rivers, often reflecting asymmetries in technical expertise and political leverage. Third, the Mahakali Treaty (1996) illustrates both the persistence of colonial boundary frameworks and emerging efforts toward cooperative and equitable resource management. The study argues that contemporary hydropolitics in the Himalayan region cannot be understood without situating transboundary water governance within its colonial historical context.

Keywords: India-Nepal relations; Mahakali River; colonial hydrology; Kumaun Himalaya; trans-boundary water governance; hydropolitics.

Introduction

The rivers connecting Nepal and northern India have always been used in diplomatic discourse either as development assets, as flood control issues or as security sensitive border resources, but that framing is incomplete. It overlooks the deeper historical point that these rivers were first made political objects, through imperial boundary-making, cartographic classification and hydraulic intervention. The Mahakali/Kali, the Kosi, and the Gandak did not start off as nicely bounded interstate resources. They became so through a gradual but forceful historical process where war, treaty-making, survey, canal engineering and downstream agrarian priorities worked together to reorder the Himalayan River frontier.

This is why the importance of Treaty of Sugauli goes beyond to the chronology of diplomacy. Its significance was not only to end the Anglo-Nepal War. By forcing Nepal to concede territories and accept a new territorial frame that was west of the Kali, the treaty contributed to the transformation of a historically interconnected landscape into a borderland organized by sovereignty, surveillance, and exclusion. Later water agreements did not come out of a clean postcolonial slate. The Kosi Agreement of 1954, the Gandak Agreement of 1959 and the Mahakali Treaty of 1996 were based on a much older logic: rivers were to be measured, allocated, engineered and defended as state resources. The diplomatic record itself indicates just how persistent this framework was. Official Indian documentation identifies three long-lasting bilateral water arrangements with Nepal: the Kosi Agreement of 1954, amended in 1966; the Gandak Agreement of 1959, amended in 1964; and the Mahakali Treaty of 1996. That sequence is important because it indicates both continuity and mutation. The language of mutual benefit developed over time, but

not the institutional architecture, which was still based on control of structures, specification of uses and managing asymmetry rather than some genuinely shared basin governance model.

The present paper therefore proceeds from a simple but demanding proposition; hydropolitics in the Kumaun-Nepal Himalaya must be historicized. A river treaty is not simply a legal instrument. It is the crystallization of past relations of power. If the Mahakali is still a politically charged site, if the Kosi is still the site of flood, displacement and inequitable gain and if the Gandak still elicits discussion of riparian rights and institutional inequities the explanation lies partially in the colonial past that structured the terms of legibility and intervention. Later agreements inherited, not only river basins, but also categories of rule.

Objective of the Study

The aim of this work is to reconstruct the history of the relationship between colonial boundary-making and transboundary water governance in the Kumaun-Nepal Himalaya, and to show that the postcolonial Kosi, Gandak, and Mahakali arrangements can best be understood as extensions, revisions, and political reworkings of patterns of institutional relationships first consolidated under imperial rule.

Research Questions

- How did the Treaty of Sugauli transform the Kali/Mahakali from a mountain river shared between all to the territorial marker of state sovereignty?
- How did colonial surveying, irrigation policy and infrastructural intervention redefine rivers as administratively governable resources?
- How did the Kosi and Gandak agreements replicate earlier asymmetries in institutional power, territorial access, and engineering control?
- To what extent was the Mahakali Treaty a departure from, rather than a continuation of previous hydropolitical patterns?
- What does a historical reading contribute that purely legal or diplomatic readings usually miss?

Methodology and Scope

This paper takes a historical-analytical approach to the subject rather than the narrowly legal or policy descriptive approach. The first layer of evidence is the textual: clauses of treaties, amendments, official letters and published bilateral documents. These texts are not considered as self-explanatory. They are read as historically situated instruments that embody assumptions about territory, rights, engineering, and political hierarchy. The second layer is documentary and institutional: colonial administrative practices, survey logic, irrigation priorities and official technical arrangements. The third layer is the interpretive scholarship on borderlands and

hydropolitics and India-Nepal water relations. The point is not piling up references, it is to recreate a chain of continuity across regimes.

Conceptually, the paper is based on historical institutional analysis and hydropolitics. Historical institutional analysis helps us to understand why subsequent agreements tend to continue to incorporate older designs, even in the face of political sovereignty changes. Critical hydropolitics helps to understand why "cooperation" is compatible with unequal bargaining, disproportionate control over infrastructure, and frequent dispute over interpretation. Bhardwaj's argument on limited negotiation is especially relevant in the India-Nepal river relationship where Nepal enters into negotiations with limited bargaining instruments beyond consent as an upper riparian whereas India enters into negotiations with the means of stronger downstream demand, greater technical capacity and project urgency. That is not to say that every agreement is illegitimate, but it is to say that "mutual benefit" is a weak description on its own.

The scope of the paper is selective. It makes no attempt at a complete basin history of all India-Nepal rivers. It is focussed on the Kumaun-Nepal Himalayan frontier and on three treaty moments: Kosi, Gandak and Mahakali. Yet the argument goes back to Sugauli because without that boundary settlement, the subsequent juridical and infrastructural treatment of the Mahakali frontier is impossible to explain properly. A brief mention of the colonial reference to the 1920 Sarada arrangement is also required, not because it is the main or core case of the paper, but because it offers an important link between the creation of boundaries and the hydraulic precedent. Bagale adds that in the exchange of letters over the Sarada Barrage in 1920, allocation was made to Nepal up to 1,000 cusecs in summer and 150 cusecs in winter while the barrage was used mainly for irrigation in British India. That is precisely the sort of colonial precedent later treaties inherited and fought over.

The limitations are evident and need to be admitted instead of concealed. Not all archival materials are equally accessible. Some official narratives emphasize state benefit and minimize local ecological or social costs. Some nationalist scholarship on both sides is polemical. This paper therefore relies on treaty texts for what they say explicitly, on secondary scholarship for interpretive challenge, and on implementation notes from officials only where they are independently contextualized.

Historical and Conceptual Background

Borderlands in the Himalaya were not the historical fixed lines. They were zones of movement, exchange, pastoral circulation and pilgrimage, seasonal access, and layered authority. Vasudha Pande's work is helpful in that it does not accept the modern border as natural. Her argument is brutal: borderlands are contingent products of historical circumstance, and British intervention in the central Himalaya eroded older patterns of "verticality", meaning the seasonal ecological

linkages that connected trans-Himalayan, high Himalayan, middle Himalayan and Tarai spaces. In other words, the colonial state did not simply map an existing reality. It reordered it.

That point is relevant directly for rivers. A river in such a landscape was not just a line dividing one sovereign from another. It could be a route, a source, a seasonal resource, a sacred geography or an ecological connector. Colonial modernity restricted that plurality. Survey, cartography, frontier administration, road and rail construction, and irrigation planning gradually favored the need for fixity in the state over the more ancient patterns of flexible use in the region. Pande demonstrates that British changes to the Tarai and nearby Himalayan areas resulted in shifts in the trade flow, land use, and mobility. The same process also changed the political significance of river space.

A second conceptual problem is that of the distinction between shared use and regulated allocation. The transition from one to the other is the actual historical problem in this paper. Once rivers are made an interstate asset that people can measure, then the questions of who builds, who runs the river, who takes out water, who pays for water, who arbitrates, and who benefits first in times of water shortage will be the relevant ones. Those are the very questions late treaty texts obsess over. That is not accidental. It is a manifestation of the victory of infrastructural and territorial imagination over a customary and relational one.

Literature Review

The relevant scholarship for this study falls into four inter-related strands. The first of them is that of the borderland history and historical making of Himalayan frontier. Pande (2021) illustrates the Kumaun - Western Tibet - Far Western Nepal as not historically organised as a fixed border in the modern territorial sense; rather it was a layered borderland structured by mobility, ecology and overlapping authority. This is an important insight since it ensures that the Mahakali frontier is not approached as a natural or timeless political fact. Instead, the boundary must be viewed as a historical result of imperial intervention, treaty-making and reordering of territory.

The second strand focuses on colonial hydrology and administrative transformations of rivers. D'Souza (2006) and Hardiman (2002) show that under British rule water was no longer seen as a local ecological resource and gradually water was reimagined as an object of measurement, control, irrigation planning and state power. Their work is not specific to the Kumaun-Nepal Frontier alone, but is analytically significant because it would explain the wider hydraulic logic in which Himalayan rivers came to be surveyed, engineered and politically claimed. This scholarship helps us to link the systems of colonial knowledge and the subsequent treaty-based water governance.

The third strand is focused on the India Nepal hydropolitics, hydro-hegemony and institutional asymmetry. Bagale (2020) puts forth that Nepal-India water cooperation cannot be comprehended

in the language of mutual benefit only since the relationship has been characterized by unequal bargaining capacity for a long time. This line of argument is enforced by Hanasz (2014), Mirumachi (2013, 2015), Rai et al. (2017) and Vasani (2023) which all illustrate that transboundary water "cooperation" often exists in conjunction with securitization, asymmetrical control, recurrent distrust and contested benefit-sharing. More specifically, Bagale and Adhikari (2020), Gyawali and Dixit (1999), Salman and Upriety (1999, 2002) and Subedi (1999) show that the Mahakali framework resulted in constant discord on the issues of interpretation, implementation, equity and legal meaning rather than addressing the deeper political issues inherent in the nature of the river relationship.

The fourth strand is the institutional and negotiation-centred analysis. Bhardwaj (2019) is of special significance here as he diverts the focus from rhetoric to bargaining structure, which implies that hydro-cooperation is influenced by the difference in technical capacity, downstream leverage and negotiating power. This view is useful for understanding why more committees and more detailed agreements have not produced more equitable outcomes.

What has been missing is the relationship between these strands. Borderland historians throw light into the process of making the frontier; hydropolitical scholars explain why postcolonial treaties remain contentious; legal and institutional studies shed light on the process of framing and contesting the agreements. But these bodies of work are not often brought together as one historical sequence. By reading the Sugauli settlement, colonial practices of hydraulics and the agreements of the Kosi, the Gandak and the Mahakali in parallel, this paper fills in that gap. The treaty texts and official records themselves (especially the Sugauli Treaty, the Kosi and the Gandak agreements and amendments, the Mahakali Treaty and the recent annual reports on Pancheshwar-related developments) are the important documentary basis against which these scholarly interpretations are tested.

Colonial Boundary-Making and the Treaty of Sugauli

The Treaty of Sugauli is usually summarised in a schoolbook fashion: the Anglo-Nepal War was over, Nepal lost territory, and a boundary was fixed. That summary is not totally false, but it is analytically shallow. The treaty did something more significant. It turned an area of overlapping claims and fluid frontier practices into a system of political separation that was fixed to named rivers and ceded territories. Article III denoted lands ceded in perpetuity including the lowlands lying between the Kali and Rapti, and Article V required Nepal to renounce all claim to the countries lying on the west of the River Kali. Taken together, those clauses did not just settle a war; they made the river juridical as a territorial marker.

That move had two long-lasting consequences. First, it took a river and turned it into a legal threshold of sovereignty. Second, it changed the way the region's political imagination was re-organized. Once the Kali/Mahakali came at center stage in the definition of territory, subsequent

arguments over the origin, alignment, and rights that that river conferred were no longer local matters. They were matters of state. This is why the Mahakali dispute of later cannot be understood without Sugauli. The treaty did not resolve the issue of the frontier in some final way. It established the terms in which the frontier would be fought over from that time on.

The treaty also involved more than territorial gain for the British. Article VIII provided for the accredited ministers to reside at each other's court. That clause indicated more than diplomatic courtesy. It institutionalized imperial oversight in the name of peaceful relations. Combined with cession and boundary language it produced the architecture of a controlled frontier, not a distant neighborly line. From then on, border knowledge, route knowledge and water knowledge were politically inseparable. A frontier that needs watching must also be surveyed; a surveyed frontier is more and more open to hydraulic calculation.

Here Pande's borderland perspective makes the point. British intervention of the central Himalaya did not simply put a line on a blank map. It broke older ecological and social circuits especially the interconnected movements that connected highland and lowland zones. Once that system was broken and reoriented, it was much easier for rivers to be recoded as boundary devices and later as infrastructure corridors. The move from river-as-connection to river-as-line was, therefore, not only a legal one, but an administrative, cartographic and epistemic one.

The logic of Sugauli was significant as well because it gave precedence to fixity over practice. Frontier communities may have continued to share use, memory, and movement but a treaty line asked a different question, where did one sovereign claim end and another begin? In mountain environments where river channels, seasonal flows, and local usages do not always conform to neat political cartography, such a query is necessarily unstable. Yet the colonial state favored instability amenable to administration over fluidity evading codification. That preference influenced not only the making of boundaries but also had impact on water governance later on.

It is therefore misleading to consider Sugauli as just a territorial preface to water agreements later on. Already it was a water-political event in embryo. By giving the Kali juridical prominence in the definition of the western limit of Nepal's claim, it inserted river space in the grammar of sovereignty. Once that grammar was in place, the issue of hydraulic works could be discussed not just as arrangements for use as shared but for issues of jurisdiction, permission, access, compensation, operation and control. That is precisely the language adopted by later treaties.

Colonial Hydraulic Governance and Infrastructural Logic

If the Territorial Frame of the frontier was set by the Treaty of Sugauli, colonial hydraulic governance gave that territorial frame administrative and infrastructural content. The point is not that every subsequent one of the India-Nepal water projects was necessarily a British design picked up and continued unchanged. That would have been inaccurate. The more important continuity is

in a way of seeing rivers, of viewing them as places to be surveyed, measured, regulated, and engineered for much larger downstream goals through formal agreements, technical expertise, and bureaucratic control. Under colonial rule, rivers also increasingly lost their status as common ecological spaces embedded in local practice and were instead produced as objects of calculation, irrigation planning, flood management and infrastructural intervention. This shift formalized a hydraulic logic whereby territorial sovereignty could be maintained intact, but operational authority, technical initiative and developmental priority were structured through unequal institutional arrangements.

The Sarada precedent is very important in this context as it represents the point of transition between territorial settlement and project-based hydraulic control. The 1920 arrangement did not do away with the formal sovereignty of Nepal but it clearly indicated a structure where water allocation and infrastructural planning were dictated mainly by the British Indian priorities. That matters because it shows that what was key inheritance from the colonial period was not empire in a narrow political sense, but a rationality of governance: upstream territory could offer site, access and consent, and downstream power could maintain the decisive role in design, operation, and the structuring of benefits. In that sense, the postcolonial treaties on the Kosi, the Gandak and the Mahakali were not historical ruptures. They were agreements that were new in articulation to an old hydraulic framework, which was already defined by colonial modes of river governance.

The Kosi Agreement (1954) & Postcolonial Water Diplomacy

The Kosi Agreement of 1954 with updates in 1966, is often presented as a flood control and development project being necessary because of a notoriously unstable river. That framing is only half true. The treaty text itself reflects a more politically consequential arrangement. The project was to be situated on land in Nepal with barrage, afflux and flood banks, canals and protective works designed for flood control, irrigation, hydroelectric generation and erosion prevention. Yet the amended text also gave India the right to regulate the balance of supplies available at the barrage site and the rights to generate power there, while Nepal's rights were cast more in the nature of withdrawal and access rights within a structure largely designed and operated by the other party. Nepal was entitled to a maximum of 50% of hydropower generated close to the barrage site, but the actual regulatory authority over the rest of the supplies was with India.

The revision of 1966 was no minor technical clean-up. It codified the extraordinary logic of leasing at the centre of the project. Lands acquired by Nepal for the project were to be leased to India for a period of 199 years at a nominal annual rate whereas Nepal's sovereignty and territorial jurisdiction were claimed to remain unimpaired. Legally, that is a nice distinction. Politically, it is the sort of differentiator which generates long-term resentment, because sovereignty lives on in name but not in essence, when it comes down to operational control. The same amended agreement also called for the setting up of a Joint Indo-Nepal Kosi Project Commission, but even this Institutional addition does not change the basic architecture: the river at the location of the barrage

site is regulated by means of an Indian led project on Nepali ground with coordination mechanisms attached later.

This is where the historical reading is important. Kosi is not just an example of colonial postcolonial cooperation gone sour. It is a postcolonial re-enactment of the older hydraulic pattern in which site, consent and exposure are available from the upstream territory and the greater technical and operational initiative is commanded by the downstream state. Bagale is blunt that the agreement did not clearly spell out the total area to be irrigated in both countries or the exact quantum of hydropower to be generated, and that this ambiguity was one of the causes of later criticism in Nepal. Bhardwaj's broader argument about unidirectional bargaining helps to explain why: once the bigger stakeholder gains consent for the project based on its own priorities, the smaller riparian is left with little leverage other than fighting over the detail and implementation of the project.

Kosi therefore shows the first truly postcolonial manifestation of a colonial inheritance. The political problem was never only whether the project did benefit or not. It was whether the structure of how benefits were generated reproduced unequal command over river space. The answer, on the terms of the treaty itself, is yes. A coordination committee, an arbitration clause and formal acknowledgement of sovereignty did not reverse the asymmetrical design of the project. They managed it.

The Gandak Agreement, 1959 and Institutional Asymmetry

If Kosi shows how project control might be embedded through lease and regulation, Gandak shows the same logic in even more explicit form. The 1959 Gandak Agreement provided India to make the project, acquire access, transport personnel and materials, construct communications and operate and maintain works that lie within the Nepalese territory. Subject to a later exception for parts of the canal system, all works connected with the project in Nepal were to remain the property of, and be operated and maintained by India. That clause by itself removes the fiction that these early treaties were nothing more than simple co-development compacts between formal equals. They were agreements between sovereign states but what they were not agreements between symmetric project principals.

The benefits promised to Nepal were tangible and thus politically significant. India undertook to construct Western Nepal Canal to irrigate some 40,000 acres and the Eastern Nepal Canal to irrigate some 103,500 acres. India also agreed to build a powerhouse of 15,000 KW in Nepal and to provide Nepal up to an aggregate maximum of 10,000 KW under certain stipulated conditions and transfer ownership of the powerhouse under certain stipulated circumstances. These were no petty concessions. But the form in which they were delivered was important. Canal operation, project roads, power transmission and the maintenance logic remained deep rooted to the Indian project authority.

The most telling clause in the original 1959 text is that dealing with riparian rights. Nepal retained the right to extract water from the river or its tributaries in Nepal but not in a way likely to prejudice the water requirements of the project. That is a qualified right, not one of co-equality. The amendment to this language in 1964 ensured Nepal's continued right to withdraw water for irrigational or other purposes in the valley and required separate agreements for trans-valley purposes for some months. It also added that the head regulator of the Don branch canal was to be operated by Nepal, keeping in mind the irrigation requirements of the two countries. The importance of the amendment is that it demonstrates that the original arrangement was politically difficult enough to need re-calibration. But the amendment only fixed some of the pressures; it did not reinvent the institutional asymmetry that underlies them.

The Gandak case is therefore central to the thesis of the paper. It shows that postcolonial hydropolitics was not simply the inheritor of colonial ideas more generally, it was the inheritor of an operational template. That template privileged project-centered control, formal preservation of sovereignty, downstream-oriented infrastructural reasoning, and later patchwork correction through supplementary letters and committee procedures. Gandak was controversial not because it lacked development rhetoric, but because its legal architecture put Nepal in the position of territorial host to a project whose command logic was still very external.

The Mahakali Treaty, 1996: Continuity, Dispute and the Possibility for Cooperation

The Mahakali Treaty of 1996 is of a different tone from Kosi and of Gandak, but not without their history. Its ambition was bigger and conceptually more integrated. It placed Sarada, Tanakpur and Pancheshwar in the same framework and clearly recognized that the river was the boundary between the two countries. The treaty granted to Nepal certain defined Sarada water entitlements, India was obliged to maintain a downstream ecological flow of 350 cusecs, and in relation to Tanakpur, acknowledged Nepal's continuing sovereignty and control over the Nepalese land and pondage area used in the context of the project. In return Nepal was assured 1000 cusecs in wet season, 300 cusecs in dry season from Tanakpur and 70 million kilowatt hours of electricity every year free of cost. These are more explicit reciprocal provisions than were seen in the earlier treaties.

The most significant doctrinal change within the treaty is, it seems, in Article 3. There, both parties agreed that they have an equal entitlement in the utilization of the waters of the Mahakali river without prejudice to existing consumptive uses. The Pancheshwar Project was to be implemented as an integrated project with equal capacity power stations on both sides and equal sharing of generated energy while costs were to be borne in proportion to benefits. On paper, this is a vast conceptual departure from the older idiom. It goes beyond simply compensation of land or access and speaks the language of co-entitlement, integrated benefit assessment and shared basin development.

But paper is not implementation. Bagale and Adhikari demonstrate why Mahakali is such a hotly contested issue. The treaty was ratified in the midst of political controversy in Nepal and the basic project logic of Pancheshwar soon ran into unanswered questions regarding DPR assumptions, sill levels, benefit calculation, water sharing after augmentation of storage and interpretation of equal entitlement. Their account also mentions that the treaty went into effect in 1997 however the implementation process was still sluggish and the DPR was still not resolved decades later. Official Indian reporting from the Department of Water Resources now says that the Pancheshwar Development Authority has been functioning since September 2014, that a draft final DPR exists and issues which both sides have raised are still under joint discussion towards finalization. So the issue is no more institutional machinery, it is the inability of the machinery to generate convergence of terms of benefit and control.

Mahakali therefore embodies continuity and at the same time partial conceptual change. The continuity is in the continued existence of border-river thinking, strategic use of infrastructure and deep mistrust of who really benefits from technical design choices. The change is in fact the explicit attempt to move away from compensation and qualified use towards equal entitlement and integrated benefit-sharing. That shift is real. It should not be dismissed. But it has not been enough to upset the older asymmetry because the most difficult questions are below the level of principle: how benefits are valued, how consumptive uses are counted, how operating rules are set, and how control over a boundary river project is actually exercised.

Comparative Analysis of the Three River Systems/ Agreements

Taken together, these three agreements - the Kosi, the Gandak and the Mahakali - indicate a process of historical evolution, but not of linear progression towards equality. Kosi institutionalized the logic of barrages through the control of leased land, the project sites and flows in Nepali territory. Gandak enhanced that trend to the point of giving India ownership and operational control over major works in Nepal despite assurances of irrigation and power benefits. Mahakali reconstructed the language of cooperation with sharper contours: Rather than qualified use or site-specific concession it evoked equal entitlement and integrated development.

Yet its implementation record illustrates to what extent it is difficult to translate normative parity to mutually accepted technical design, valuation and operation. The fundamental comparative difference is that all three agreements-maintained Nepal's formal sovereignty while leaving the more difficult question unspecified: Who controls infrastructure, schedules water, defines benefit, and absorbs blame when things don't go as well as promised? Kosi in terms of lease and regulation, Gandak in terms of ownership and operation and Mahakali in terms of disputes over the technical translation of equal entitlement, express asymmetry in the sharing of water. The form varies across

Findings and Discussion

This paper has four main findings. First, the transition from common river space to regulated transboundary resource management, began not in 1954 or 1959, but with the territorial and epistemic reordering inaugurated by Sugauli and then further strengthened by colonial hydraulic intervention. Second is that the postcolonial treaties did not break from that inheritance. Kosi and Gandak turned it into the bilateral project form, retaining the sovereignty in law and asymmetry in operation. Third, Mahakali represented a very real conceptual shift toward an equal entitlement, but the shift ran into older habits of valuation, technical control, and mistrust. Fourth, a historical reading clarifies why institutional proliferation was not the solution to the problem: committees and authorities were added to a relationship whose basic grammar was already unequal.

The value of the historical approach, then, is not ornamental background. It alters the interpretation of the treaties themselves. A strictly diplomatic interpretation may be that the agreements are a product of successive attempts to strengthen cooperation. A purely legal reading may compare clauses. A historical reading reveals something harder and more useful: each treaty is a step in the long institutionalization of rivers as territorial infrastructure. That is why the argument in this paper cannot be reduced to either "India exploited Nepal" or "both sides failed to cooperate." The more exact conclusion is that there was multiple and repeat cooperation within a structure that had historically asymmetric origins and assumptions of operation.

Conclusion

The questions posed in the research at the beginning of this paper can now be answered directly. The Treaty of Sugauli made the Kali/Mahakali a juridical marker of the boundary and launched a long-term process of de-territorialisation of river use and territorialisation of political interests over the river. Colonial survey and irrigation practices then turned river space into an object of infrastructural rule. The Kosi and the Gandak agreements forwarded that logic in postcolonial garb as they combined the promise of development with unequal control of project structures, land, regulations and authority over operations. The Mahakali Treaty broke partially away from that model by enunciating the principle of equal entitlement and integrated benefit-sharing, but its sluggish implementation shows how hard it is to overcome the inherited architecture of mistrust, asymmetry and power that is hard-wired into technicalities. What the three cases have in common is not the failure of cooperation as such, but the limits of cooperation that has been built upon premises of historical inequality. Rivers in Kumaun-Nepal Himalaya were transformed into political resource during boundary making and into developmental resource by hydraulic intervention and diplomatic resource by treaties. That sequence matters. Without it, the post-1950 agreements take on the appearance of isolated policy episodes. With it, they seem like stages in a much longer remaking of sovereignty, ecology and regional power in the Himalayan borderlands. That is the central claim of the paper, and it is the only one which makes sufficient sense as to why transboundary water governance in this region is so politically charged.

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